

Residential Energy Credit, 1978-1980

By Richard Thompson and Rich Hillelson*

Data for Tax Year 1980 reveal that of the 93.9 million individual income tax returns filed, 4.7 million claimed the residential energy credit. An overwhelming majority, 4.6 million, claimed the credit as a result of their expenditures on energy conservation items such as insulation and storm windows, while only 155,000 claimed the credit in connection with expenditures for solar, geothermal, or wind energy producing devices. These taxpayers reported spending \$3.2 billion on the energy conservation items and \$448 million on the alternative sources of energy and, consequently, were able to reduce their income tax liability by \$562 million.

EXPLANATION OF RESIDENTIAL ENERGY CREDIT

In order to reduce energy consumption and to encourage the development and use of alternative energy sources, a residential energy credit was provided for by the Energy Tax Act of 1978. The credit is composed of two separate parts, one based on qualified "energy conservation expenditures," and the other on qualified "renewable energy source expenditures," with different requirements for each type of credit. The entire residential energy credit is available for qualified items installed in or on the taxpayer's principal residence from April 20, 1977, through December 31, 1985. However, the credit could not be claimed for any taxable year beginning before January 1, 1978. Therefore, it was first available for use on 1978 tax returns and covered the 20-month period from April 20, 1977 through December 31, 1978. Also, if the amount of the credit for a given year exceeds the taxpayer's income tax, it can be carried over to subsequent years through 1987.

Energy Conservation Credit

The credit for energy conservation property is 15 percent of expenditures, including original installation costs, with a maximum expenditure of \$2,000 and, consequently, a maximum credit of \$300 per residence over the entire period the credit is to be in effect. The credit is available for each dwelling unit used by the taxpayer as a principal residence; however, the construction of the residence had to be substantially completed before April 20, 1977, in order for the energy conservation expenditures to qualify. In addition, the taxpayer has to be the first person to use the property installed and that property has to be expected to remain in use for at least 3 years. Energy conservation property consists of insulation, storm windows and doors, caulking and weatherstripping, and certain other items such as an automatic energy-saving setback thermostat.

Renewable Energy Source Credit

The second component of the residential energy credit is the credit for renewable energy source property. This refers to any item which uses a solar, geothermal, or wind source to produce energy. For 1978 and 1979, the credit for renewable energy source property was 30 percent of the first \$2,000 and 20 percent of the next \$8,000 of expenditures, including labor costs for on-site preparation, assembly, or original installation. For 1980, the credit was 40 percent of the first \$10,000 of expenditures. Over the entire period that the credit is to be in effect, the maximum amount of qualifying expenditures is \$10,000 and the maximum credit varies from a low of \$2,200 if all qualifying expenditures were made prior to January 1, 1980, to a high of \$4,000 if all such expenditures were made on or after January 1, 1980. These maximums apply to each principal residence owned by the taxpayer during the time period that the credit is in effect.

In contrast to the credit for energy conservation property, the renewable energy source credit is available for items installed on both existing and newly constructed principal residences. The taxpayer has to be the first person to use the property and it has to be expected to remain in use for at least 5 years.

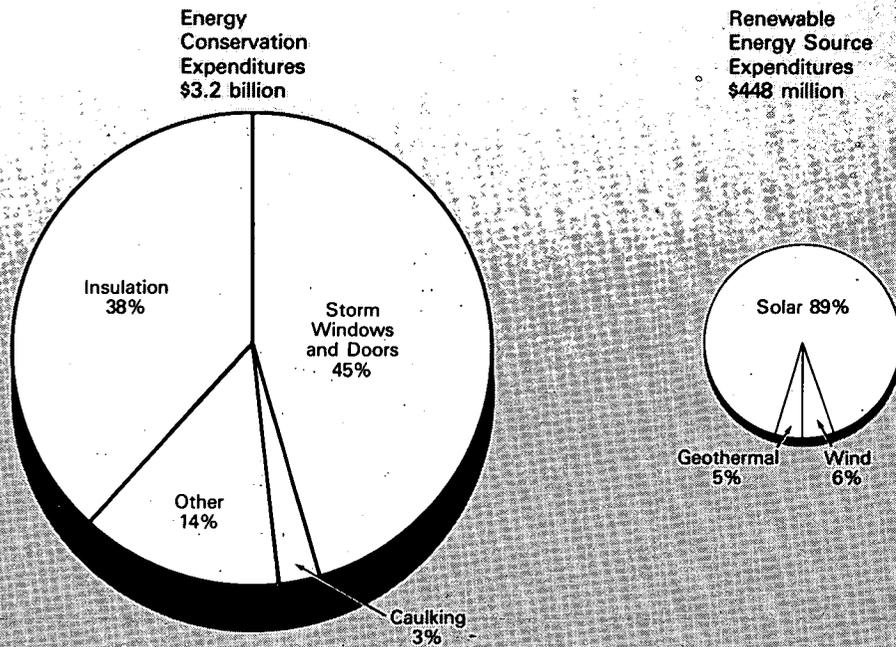
ADDITIONAL 1980 DATA

A closer look at the \$3.2 billion of conservation expenditures shows that the largest amount, \$1.5 billion, went for storm windows and doors while \$1.2 billion was spent on insulation. The third specific item for which a separate total was tabulated was for caulking expenses, which amounted to only \$84 million. The "other" category of expenditures totaled \$444 million and was composed of expenses for devices such as automatic setback thermostats and certain furnace replacement burners.

For 1980, the other component of the residential energy credit, the renewable energy source credit, accounted for total expenditures of \$448 million. Taxpayers spent \$399 million on the acquisition and installation of solar energy property, while only \$27 million went for wind energy items, and \$21 million was used for geothermal energy sources. In terms of number of returns, the utilization of the renewable energy source credit was quite low, with only 137,000 returns reporting expenditures for solar energy, while 11,000 claimed expenses for wind energy and 7,000 showed outlays for geothermal energy. Figure A shows the distribution for both the energy conservation expenditures and the renewable energy source expenditures.

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Figure A
Residential energy expenditures — 1980



State Data

Figure B shows, by State, for 1980, returns with a residential energy credit as a percent of all returns. While the data for the northeastern States support the expectation that these States would utilize the credit to a greater extent than those in warmer climates, the data for the rest of the country are inconclusive. For example, a higher percentage of taxpayers in Alabama claimed the credit than did those in the surrounding States of Tennessee, Georgia, Florida, and Mississippi. A possible explanation is that, of these five States, only Alabama has either a State income tax credit or deduction for energy expenditures. This provides the residents of Alabama with an additional incentive to make expenditures related to saving energy.

The following comparison of the States with the highest and lowest rates of energy credit "participation" (percent of returns with a residential energy credit) shows no significant difference in the size of the average credit, with the exception of Hawaii, which shows an average credit over six times as large as that of the next highest State, California. This situation is explained by the fact that, for Hawaii, 98 percent of the total residential energy credit is attributable to the renewable energy source category which is based on solar, geothermal, and wind sources. This "renewable" part can amount to as much as \$4,000 per residence, whereas the energy conservation category (insulation, storm windows, and similar items) is limited to a maximum of \$300 per residence.

High Participation States

Average Credit

Minnesota.....	\$82
Massachusetts	\$168
Connecticut	\$140
Utah	\$89

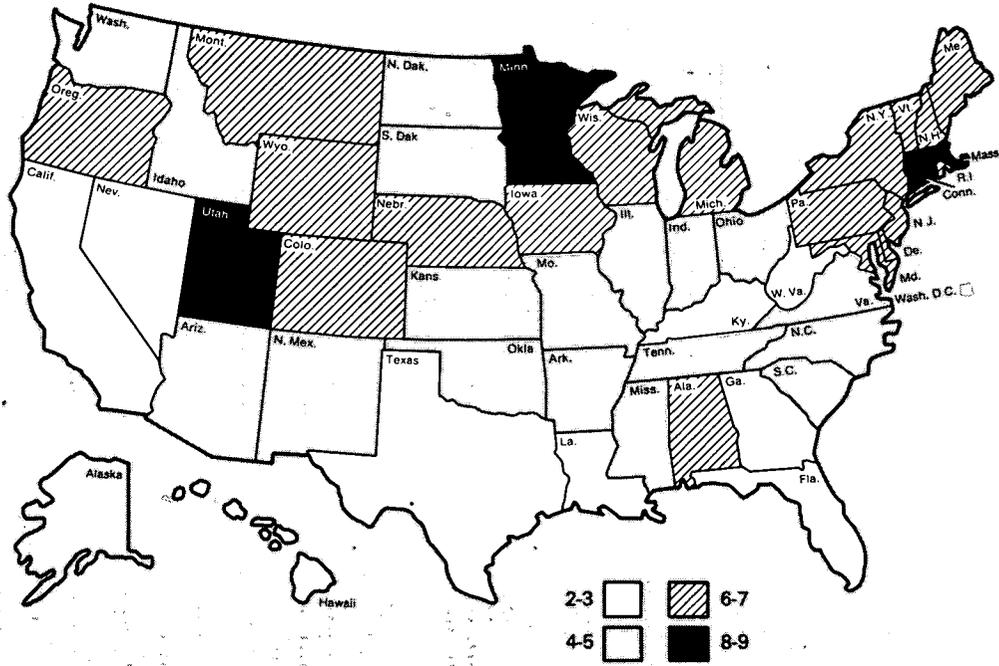
Low Participation States

California	\$226
Florida	\$168
Hawaii	\$1,392

Characteristics of Energy Credit Returns

Table 2 contains a profile of those taxpayers who reported residential energy credit expenditures for 1980. The data below have been derived from that table and offer a comparison between returns filed by taxpayers with such expenditures and all returns filed. Returns with energy expenditures have an average adjusted gross income that is approximately 77 percent higher than the average for all returns. This is not surprising since one would expect a strong correlation between higher incomes, home ownership, and the use of the energy credit. The slightly higher average amounts, on returns with energy expenditures, for total itemized deductions and real estate taxes tend to reinforce this observation. However, this contention seems to be contradicted by the fact that returns with energy expenditures show a lower average home mortgage interest deduction than that claimed for

Figure B
Returns With Residential Energy Credit as a Percent of All Returns, by State, 1980



all returns. This may be explained by the stipulation in the Energy Tax Act of 1978 that only residences substantially completed before April 20, 1977, qualify for the energy conservation part of the credit. As a result, the lower purchase prices and mortgage rates generally associated with these houses would result in a smaller home mortgage interest deduction on the average.

1978-1980 PERSPECTIVE

The residential energy credit has now been available to taxpayers for 3 years. This brief history provides an opportunity to examine the data for developments and trends. In doing so, it is important to recognize the effect of the maximum expenditure and credit amounts discussed earlier. For both the energy conservation credit and the renewable energy source credit, these maximums apply to each principal residence occupied by the taxpayer. This means that once the taxpayer has claimed the maximum amount allowable for a particular residence, the only way to claim additional amounts is to occupy a new principal residence.

	All Returns	Returns with Energy Credit Expenditures
	(average amounts for 1980)	
Adjusted Gross Income	\$17,185	\$30,495
Total Itemized Deductions.	7,531	7,779
Real Estate Taxes	866	976
Home Mortgage Interest ...	2,653	2,494

Residential Energy Credit, 1978-1980

Energy Credit Trends

In the case of the energy conservation credit, the maximum claimable amount, coupled with the requirement that the residence have been built before April 20, 1977 (which creates a fixed supply of eligible houses) has caused a predictable decline in the number of returns with an energy conservation credit, and a corresponding drop in the amount of the credit claimed over the first 3 years of the credit. It should also be noted that the data for 1978 include amounts claimed for the 20-month period from April 20, 1977 through December 31, 1978.

Energy Conservation Credit

	Number of Returns (millions)	Credit Amount (millions)
1978.....	5.9	\$559
1979	4.8	437
1980	4.6	419

While the 3-year trend for the energy conservation credit has been downward, the opposite is true for the renewable energy source credit shown below. Between 1978 and 1980, the number of returns claiming this part of the residential energy credit has more than doubled, while the amount of the "renewable" credit has increased fivefold. One factor which has encouraged this growth is that all residences are eligible for the "renewable" credit, whereas for the conservation credit, only those constructed before April 20, 1977 qualify. Also, beginning with 1980, the credit amounted to 40 percent of the first \$10,000 of qualified expenditures whereas for 1978 and 1979 it was 30 percent of the first \$2,000 of expenditures and only 20 percent of the next \$8,000 of expenditures. However, it is important to note the extremely small base on which this increase has occurred. The very low number of returns claiming the "renewable" credit, compared to the conservation credit, is probably due to the relatively high cost involved in installing solar, geothermal, and wind equipment.

Renewable Energy Source Credit

	Number of Returns (thousands)	Credit Amount (millions)
1978	69	32
1979	77	44
1980	155	166

With the frequency and amount of the energy conservation credit declining while the relatively smaller renewable energy source credit frequency and amount are increasing, it is of interest to look at the net effect on the total residential energy credit. The combined data below show that the number of returns declined considerably from 1978 to 1979 and then only slightly for 1980. The amount of the residential energy credit fell substantially from 1978 to 1979 and then, for 1980, rebounded to almost the 1978 level due to the effect of the increase in the renewable energy source credit to 40 percent for 1980 (explained above).

Residential Energy Credit
(before limitation)

	Number of Returns (millions)	Credit Amount (millions)
1978	6.0	592
1979	4.8	481
1980	4.7	584

Energy Expenditure Trends

The above information compares the utilization of the energy conservation credit versus the renewable energy source credit from the perspective of the residential energy credit amount which serves as a direct reduction of the taxpayer's tax liability. It is also informative to make this comparison at the beginning of the process, that is, by examining the actual expenditures made by the taxpayer for energy related goods and services which qualify for the credit. The data below show the 3-year distribution of the amounts spent for the various categories of energy conservation and renewable energy source items.

In the area of energy conservation, the expenditures for insulation showed the largest and most consistent decline over the period while those for storm windows and doors showed a similar decline from 1978 to 1979 and then increased very slightly for 1980. The categories of "caulking" and "other" generally remained constant over the 3-year period with only slight rises for 1979 before returning to their 1978 levels.

A look at the expenditures for renewable energy sources shows quite a different picture. All three categories (solar, geothermal, and wind) rose dramatically from 1978 to 1980, although it must be pointed out that they started at much lower levels than the various energy conservation items. Expenditures for solar energy more than tripled from \$120.3 million to \$399 million. Geothermal expenses increased 7 times from \$3.1 million to \$21.2 million. The final renewable item, wind energy, increased by a factor of 17, from \$1.6 million to \$27.4 million. It remains to be seen whether these increases will continue or if they are only temporary rises in a market limited by very high initial expenditure requirements.

Category	Energy Expenditures (millions)		
	1978	Tax Year 1979	1980
Energy Conservation			
Insulation	1,760	1,332	1,218
Storm Windows/Doors ..	1,797	1,403	1,455
Caulking	89	100	84
Other	454	467	444
Total	4,101	3,302	3,200
Renewable Sources			
Solar	120.3	171.2	399.0
Geothermal	3.1	9.7	21.2
Wind	1.6	9.4	27.4
Total	125.0	190.3	447.6

Table 1.—Returns With Residential Energy Expenditures by Size of Adjusted Gross Income, 1978, 1979, and 1980

[All figures are estimates based on samples—money amounts are in thousands of dollars]

Size of adjusted gross income	Number of returns with residential energy expenditures (including credit carryover from previous years)			Energy conservation expenditures							
				Total						Insulation	
	1978	1979	1980	1978		1979		1980		1978	
				Number of returns	Amount	Number of returns	Amount	Number of returns	Amount	Number of returns	Amount
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	
Total.....	5,960,618	4,911,119	4,787,883	5,919,841	4,100,680	4,781,772	3,302,364	4,600,985	3,200,379	3,926,755	1,759,849
Under \$5,000.....	56,955	62,778	55,865	56,913	43,268	54,933	39,897	44,239	38,386	36,815	20,068
\$5,000 under \$10,000.....	441,635	313,926	290,414	440,706	279,357	293,750	206,906	259,515	170,497	290,391	124,678
\$10,000 under \$15,000.....	647,208	542,141	440,217	643,233	414,912	524,677	347,375	422,483	274,803	414,938	169,433
\$15,000 under \$20,000.....	1,124,107	761,780	601,243	1,121,268	697,154	749,281	497,881	584,619	363,273	756,562	308,263
\$20,000 under \$25,000.....	1,288,343	857,505	751,044	1,280,605	872,765	835,237	509,719	730,493	488,879	878,443	379,896
\$25,000 under \$30,000.....	888,006	790,869	720,849	882,781	581,142	776,303	517,945	697,899	462,724	586,280	245,155
\$30,000 under \$40,000.....	921,292	931,451	1,021,985	908,915	683,786	911,984	649,735	991,188	663,520	599,408	292,297
\$40,000 under \$50,000.....	299,412	315,940	466,691	295,523	228,772	311,960	234,465	453,007	340,230	188,730	96,606
\$50,000 under \$75,000.....	194,435	220,502	296,444	192,645	182,155	214,179	176,594	283,463	244,204	118,971	75,293
\$75,000 under \$100,000.....	51,998	58,242	76,440	51,111	53,994	55,715	54,528	71,617	76,937	28,804	22,117
\$100,000 under \$200,000.....	39,724	46,626	54,950	38,834	51,301	44,739	53,013	51,668	59,206	23,299	20,945
\$200,000 or more.....	7,503	9,359	11,741	7,307	12,074	9,014	14,306	10,794	17,721	4,114	5,098

Size of adjusted gross income	Energy conservation expenditures—Continued									
	Insulation—Continued				Storm windows or doors					
	1979		1980		1978		1979		1980	
	Number of returns	Amount	Number of returns	Amount	Number of returns	Amount	Number of returns	Amount	Number of returns	Amount
(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	
Total.....	2,898,338	1,331,718	2,701,148	1,217,612	3,357,583	1,797,326	2,543,590	1,403,014	2,460,285	1,455,357
Under \$5,000.....	34,917	19,869	21,189	16,317	27,325	15,209	24,963	16,643	24,322	15,814
\$5,000 under \$10,000.....	172,943	105,698	140,867	67,362	216,954	125,283	156,170	77,114	133,067	79,723
\$10,000 under \$15,000.....	318,322	131,186	250,911	115,140	370,114	194,252	270,020	151,212	216,835	112,068
\$15,000 under \$20,000.....	463,361	208,714	334,072	131,257	639,094	308,178	401,702	208,817	342,781	170,229
\$20,000 under \$25,000.....	531,636	201,674	454,832	192,524	725,058	373,269	456,459	218,839	396,283	222,344
\$25,000 under \$30,000.....	464,371	202,807	409,534	173,942	537,192	258,409	427,839	230,829	391,361	213,015
\$30,000 under \$40,000.....	552,990	262,524	620,641	254,348	529,051	298,558	480,687	270,397	516,126	303,424
\$40,000 under \$50,000.....	186,038	87,285	244,363	123,652	164,001	94,444	166,221	102,144	233,987	155,258
\$50,000 under \$75,000.....	116,615	63,760	156,346	88,797	101,676	80,104	108,655	76,773	141,408	112,697
\$75,000 under \$100,000.....	28,704	21,716	37,095	26,057	25,730	21,275	27,396	22,785	34,587	34,580
\$100,000 under \$200,000.....	23,968	21,440	25,995	21,685	18,021	22,970	19,772	21,147	24,984	28,143
\$200,000 or more.....	4,473	5,046	5,303	6,531	3,367	5,375	3,706	6,314	4,544	8,062

Footnotes at end of table.

Table 1.--Returns With Residential Energy Expenditures by Size of Adjusted Gross Income, 1978, 1979, and 1980--Continued

[All figures are estimates based on samples--money amounts are in thousands of dollars]

Size of adjusted gross income	Energy conservation expenditures--Continued						Renewable energy source expenditures					
	Caulking						1978		1979		1980	
	1978		1979		1980		Number of returns	Amount	Number of returns	Amount	Number of returns	Amount
	Number of returns	Amount	Number of returns	Amount	Number of returns	Amount						
(22)	(23)	(24)	(25)	(26)	(27)	(28)	(29)	(30)	(31)	(32)	(33)	
Total.....	1,565,525	89,435	1,352,636	100,365	1,225,054	83,711	69,341	125,039	76,555	190,283	155,269	447,558
Under \$5,000.....	15,496	593	7,304	504	2,982	292	*147	*272	878	1,742	1,471	6,558
\$5,000 under \$10,000.....	106,250	4,847	57,053	6,262	37,011	2,451	*4,209	*1,557	4,823	6,591	10,693	28,099
\$10,000 under \$15,000.....	116,309	6,225	118,966	20,333	97,734	13,694	4,952	12,039	8,711	6,610	6,149	13,992
\$15,000 under \$20,000.....	282,693	15,650	222,410	12,008	161,335	9,424	8,325	9,275	8,177	13,912	14,992	39,904
\$20,000 under \$25,000.....	378,486	18,142	254,911	18,090	200,901	9,708	15,083	24,067	10,066	17,668	17,371	31,415
\$25,000 under \$30,000.....	285,268	16,671	255,736	14,047	214,154	10,971	9,641	8,494	9,179	43,901	25,031	61,776
\$30,000 under \$40,000.....	253,847	14,709	275,148	15,185	286,057	14,405	16,378	28,010	16,512	43,196	31,758	103,764
\$40,000 under \$50,000.....	79,333	6,372	94,380	5,870	132,358	9,756	6,457	18,622	5,675	15,632	20,252	50,887
\$50,000 under \$75,000.....	37,797	4,258	50,911	4,385	70,069	7,698	2,864	6,583	7,906	23,550	16,325	55,636
\$75,000 under \$100,000.....	5,844	639	9,956	1,975	14,798	2,403	1,742	9,842	2,286	6,900	5,758	29,200
\$100,000 under \$200,000.....	3,649	1,086	5,070	1,350	6,387	2,122	1,275	4,854	1,962	8,681	4,254	19,095
\$200,000 or more.....	553	243	791	354	1,268	788	268	1,422	380	1,901	1,215	7,232

Size of adjusted gross income	Residential energy credit carryover				Total residential energy credit (before limitation)					
	From 1978 (shown on 1979 returns)		From 1979 (shown on 1980 returns)		1978		1979		1980	
	Number of returns	Amount	Number of returns	Amount	Number of returns	Amount	Number of returns	Amount	Number of returns	Amount
	(34)	(35)	(36)	(37)	(38)	(39)	(40)	(41)	(42)	(43)
Total.....	105,303	18,369	118,244	20,192	5,960,618	591,509	4,911,119	498,967	4,781,708	604,624
Under \$5,000.....	8,682	1,604	11,472	1,519	56,955	5,553	62,778	7,076	55,845	8,886
\$5,000 under \$10,000.....	21,889	2,486	33,946	3,906	441,635	38,465	313,926	33,575	290,414	37,942
\$10,000 under \$15,000.....	20,639	3,034	15,703	2,558	647,208	61,396	542,141	50,360	440,217	45,869
\$15,000 under \$20,000.....	12,442	2,156	15,067	3,685	1,124,107	99,627	761,780	73,591	601,151	68,850
\$20,000 under \$25,000.....	14,913	3,474	14,431	2,680	1,288,343	126,796	857,505	78,163	749,438	78,987
\$25,000 under \$30,000.....	11,892	1,853	9,332	1,457	889,006	82,851	790,869	77,549	720,844	85,776
\$30,000 under \$40,000.....	9,501	2,492	12,213	2,245	921,292	98,409	931,451	97,145	1,020,722	128,848
\$40,000 under \$50,000.....	1,770	415	2,296	1,192	299,412	36,254	315,940	34,958	465,048	64,159
\$50,000 under \$75,000.....	2,338	498	2,338	657	194,435	24,765	220,502	28,569	295,654	49,867
\$75,000 under \$100,000.....	950	172	*503	*83	51,998	9,046	58,242	8,301	76,435	18,312
\$100,000 under \$200,000.....	497	169	754	149	39,724	6,816	46,626	7,878	54,386	13,282
\$200,000 or more.....	70	17	189	62	7,503	1,532	9,359	1,801	11,554	3,846

*Estimate should be used with caution because of the small number of sample returns on which it is based.
NOTE: Detail may not add to total because of rounding.

Residential Energy Credit, 1978-1980

Table 2.--Selected Income, Deductions, and Tax Items on Returns With Residential Energy Expenditures, 1980
 [All figures are estimates based on samples--money amounts are in thousands of dollars]

Size of adjusted gross income	All individual income tax returns	Returns with residential energy expenditures								
		Number of returns	Number of principle residences	Adjusted gross income	Salaries and wages		Interest received		Itemized deductions	
					Number of returns	Amount	Number of returns	Amount	Total	
									Number of returns	Amount
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	
Total.....	93,902,469	4,787,883	4,793,461	146,004,597	4,310,128	121,244,206	3,914,257	8,286,028	3,578,248	27,836,940
Under \$5,000.....	20,055,529	55,865	55,865	-250,493	22,469	175,130	45,593	97,516	5,363	26,645
\$5,000 under \$10,000.....	18,370,997	290,414	290,414	2,311,241	192,649	1,264,606	230,105	457,140	77,410	361,394
\$10,000 under \$15,000.....	14,303,041	440,217	440,243	5,518,271	340,387	3,936,655	314,069	731,851	208,596	984,662
\$15,000 under \$20,000.....	11,097,733	601,243	601,243	10,580,396	527,852	8,294,469	454,651	834,963	363,917	1,885,760
\$20,000 under \$25,000.....	9,158,521	751,044	751,044	16,937,381	707,452	14,840,909	582,106	874,909	560,563	3,304,807
\$25,000 under \$30,000.....	6,783,466	720,849	724,524	19,703,959	688,453	17,707,764	554,086	776,580	586,528	3,680,089
\$30,000 under \$40,000.....	7,950,952	1,021,985	1,021,985	35,180,514	985,133	31,576,099	890,627	1,355,288	904,541	6,585,134
\$40,000 under \$50,000.....	3,053,039	466,691	468,389	20,640,421	447,183	18,160,464	421,291	859,480	443,595	4,031,662
\$50,000 under \$75,000.....	2,033,079	296,444	296,593	17,441,201	274,299	13,929,423	283,253	1,048,697	286,549	3,391,349
\$75,000 under \$100,000.....	535,348	76,440	76,466	6,525,421	67,078	4,606,686	73,630	435,750	74,961	1,285,554
\$100,000 under \$200,000.....	443,514	54,950	54,950	7,143,076	47,455	4,769,687	53,343	518,144	54,557	1,411,383
\$200,000 or more.....	117,250	11,741	11,745	4,273,209	9,718	1,982,315	11,503	295,711	11,668	888,502

Size of adjusted gross income	Returns with residential energy expenditures--Continued									
	Itemized deductions--Continued								Exemptions	
	Interest paid deduction				Taxes paid deduction				Total	Taxpayer
	Total		Home mortgage interest		Total		Real estate taxes			
Number of returns	Amount	Number of returns	Amount	Number of returns	Amount	Number of returns	Amount			
(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	
Total.....	3,424,707	11,183,856	3,072,404	7,661,939	3,577,995	10,027,364	3,470,670	3,386,422	15,606,180	8,852,107
Under \$5,000.....	3,383	10,317	2,506	5,496	5,363	6,634	2,731	1,883	157,035	82,999
\$5,000 under \$10,000.....	70,558	169,282	64,606	125,101	77,410	78,398	76,125	48,622	727,598	459,234
\$10,000 under \$15,000.....	190,471	425,086	169,599	310,343	208,596	269,799	201,257	138,684	1,202,169	722,955
\$15,000 under \$20,000.....	337,083	866,825	309,993	644,477	363,917	559,161	347,036	240,047	1,812,723	1,041,886
\$20,000 under \$25,000.....	543,897	1,443,403	489,092	1,025,259	560,310	1,061,546	542,063	419,153	2,483,077	1,388,140
\$25,000 under \$30,000.....	573,022	1,593,957	515,463	1,125,259	586,528	1,292,685	566,045	471,968	2,453,353	1,384,091
\$30,000 under \$40,000.....	880,741	2,709,176	803,120	1,926,585	904,541	2,399,623	876,161	802,180	3,560,417	1,993,533
\$40,000 under \$50,000.....	425,305	1,576,356	374,060	1,111,750	443,595	1,573,111	438,567	517,589	1,628,347	917,551
\$50,000 under \$75,000.....	269,286	1,233,436	237,089	833,349	286,549	1,365,612	281,641	423,846	1,039,773	581,867
\$75,000 under \$100,000.....	69,847	459,137	58,377	270,799	74,961	520,382	73,946	142,141	287,601	149,621
\$100,000 under \$200,000.....	50,588	470,771	40,849	223,551	54,557	553,675	53,766	133,095	210,259	107,379
\$200,000 or more.....	10,526	226,110	7,650	59,972	11,668	340,736	11,422	47,217	43,828	22,851

Size of adjusted gross income	Returns with residential energy expenditures--Continued							
	Exemptions--Continued		Taxable income		Income tax before credits		Total tax credits	
	Age 65 or over	Dependents	Number of returns	Amount	Number of returns	Amount	Number of returns	Amount
	(21)	(22)	(23)	(24)	(25)	(26)	(27)	(28)
Total.....	698,979	6,053,364	4,755,264	114,743,168	4,714,869	25,813,488	4,710,136	1,089,622
Under \$5,000.....	17,490	56,546	31,904	76,556	19,653	2,703	19,653	1,504
\$5,000 under \$10,000.....	163,142	105,173	287,089	1,467,655	265,716	103,298	265,716	28,740
\$10,000 under \$15,000.....	159,904	319,216	438,797	3,932,784	434,628	447,658	434,628	65,031
\$15,000 under \$20,000.....	115,170	655,667	600,114	7,993,129	599,549	1,110,755	599,549	96,859
\$20,000 under \$25,000.....	55,621	1,038,270	749,377	12,959,746	747,752	2,031,914	746,146	127,112
\$25,000 under \$30,000.....	59,621	1,009,641	720,827	15,504,857	720,827	2,688,022	720,826	138,921
\$30,000 under \$40,000.....	53,638	1,512,902	1,021,929	28,061,243	1,021,911	5,617,823	1,020,648	213,763
\$40,000 under \$50,000.....	25,008	685,788	466,254	16,475,199	465,964	3,891,630	464,350	108,122
\$50,000 under \$75,000.....	26,050	431,765	295,944	13,975,909	295,944	3,970,378	295,785	126,466
\$75,000 under \$100,000.....	10,024	127,956	76,392	5,207,928	76,289	1,818,171	76,284	55,874
\$100,000 under \$200,000.....	9,764	93,014	54,925	5,704,927	54,925	2,348,904	54,840	77,174
\$200,000 or more.....	3,547	17,426	11,712	3,383,236	11,712	1,782,233	11,711	50,057

Size of adjusted gross income	Returns with residential energy expenditures--Continued					
	Residential energy credit used to offset income tax before credits		Income tax after credits		Total income tax	
	Number of returns	Amount	Number of returns	Amount	Number of returns	Amount
	(29)	(30)	(31)	(32)	(33)	(34)
Total.....	4,669,675	562,141	4,594,070	24,723,866	4,601,056	24,821,963
Under \$5,000.....	19,069	1,316	10,141	1,198	10,384	5,041
\$5,000 under \$10,000.....	254,924	22,328	206,843	74,558	206,927	74,770
\$10,000 under \$15,000.....	427,716	41,015	413,607	382,628	413,691	383,623
\$15,000 under \$20,000.....	595,064	65,367	589,452	1,013,896	590,070	1,015,431
\$20,000 under \$25,000.....	739,798	74,291	739,517	1,904,802	741,349	1,905,614
\$25,000 under \$30,000.....	715,405	84,130	714,710	2,549,101	715,978	2,550,460
\$30,000 under \$40,000.....	1,017,657	126,612	1,017,283	5,404,060	1,018,608	5,407,487
\$40,000 under \$50,000.....	463,957	63,805	465,088	3,783,507	465,465	3,785,937
\$50,000 under \$75,000.....	294,207	48,351	294,950	3,843,912	295,608	3,854,721
\$75,000 under \$100,000.....	76,206	17,891	76,076	1,762,297	76,297	1,768,962
\$100,000 under \$200,000.....	54,156	13,222	54,705	2,271,730	54,941	2,300,470
\$200,000 or more.....	11,516	3,814	11,698	1,723,176	11,738	1,769,448

NOTE: Detail may not add to total because of rounding.

DATA SOURCES AND LIMITATIONS

These statistics are based on a sample of individual income tax returns, Forms 1040, for each of the Tax Years 1978, 1979, and 1980. Returns in each year's sample were stratified based on the presence or absence of Schedule C, Profit (or Loss) from Business or Profession; State in which filed; adjusted gross income or deficit, or largest selected source of income or loss; and size of business plus farm receipts. The 1978 returns were selected at rates that ranged from .02 percent to 100 percent and the 1979 and 1980 returns from 0.05 percent to 100 percent. For 1980, there were 171,508 returns in the sample, from a total population of 93,902,469 returns. For 1979, the sample size was 203,536 returns and the population was 92,694,302 returns. For 1978, there were 157,518 returns in the sample and 89,771,551 in the population.

Coefficient of Variation

As the data presented in this article are estimates based upon a sample of documents filed with the Internal Revenue Service, they are subject to sampling, as well as nonsampling, errors. To properly use the statistical data provided, the magnitude of the sampling errors must be known.

The table below presents approximated coefficients of variation (CV's) for frequency estimates. The approximate CV's shown here are intended only as a general indication of the reliability of the data. For numbers of returns other than those shown below, the corresponding CV's can be estimated by interpolation.

The reliability of estimates based on samples, and the use of coefficients of variation for evaluating the precision of sample estimates are discussed in Appendix II.

<u>1980 Number of Returns</u>	<u>Approximated Coefficient of Variation</u>
5,049,200	.02
807,900	.05
202,000	.10
50,500	.20
22,400	.30
8,100	.50